



On the Bayou

JUNE 2018



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Message from the Director

Dr. Deepak Bhatnagar

Summer is a busy time for everyone. Some are conducting experiments that can only be done this time of year, others are traveling to scientific society meetings, while some are planning vacations and leave to spend time with family. In addition to this, scientists have to ensure that papers are submitted in time for the annual performance evaluations. Soon after, annual reports are due. Of course for the Administrative staff, RLs and PSAs, the ARMPS process requires paying attention to a lot of details. In short, before we know it, the summer has passed and we will be preparing for the end of the fiscal year and the associated budget issues.

Speaking of annual reports, I must remind everyone that these documents and the 115s entered into ARIS (for both publications and presentations) have significant impact. These documents are not only the guiding documents for ONP, but Congressional staffers also use the documents to assess the significance of our research programs. The importance of annual reports was again recently highlighted by the visiting OTT staff; all annual reports and 115s are reviewed to determine which projects may be suitable for technology transfer. These documents also form the basis for our Communications staff to prepare research summaries for distribution to the general public.

So, I cannot emphasize enough that you must give the highest attention to preparing annual reports and ARIS 115s for ALL your papers and presentations.

Events and Observances

Asian Pacific American Heritage Celebration

Traditional Chinese Music Came to SRRC

Submitted by: H.N. Cheng

On May 24, Mr. Pan Luo, an accomplished local musician and operations manager for Fischer Environmental Services, visited SRRC and provided highlights of traditional Chinese instrumental music to help celebrate Asian Pacific Heritage Month. He reviewed the eight main categories of Chinese musical instruments and played excerpts of five musical pieces from video recordings, including two orchestral pieces, two solos pieces (played on *guzheng* and *dizi*) and a duet (with *pipa* and *sheng*). He himself gave a live performance on *erhu*, which is the Chinese equivalent of violin that has only two strings and no fingerboard.

Traditional Chinese music is based on the pentatonic scale and tends to be melodic rather than harmonic. Solo music (and duets) are respected for their virtuosity and the soothing effect they have on the listeners. Orchestral music tends to be heterophonic and requires the coordination of a large number of instruments. Historically Chinese music has been influenced by the music of Central Asia and India, and more recently by western music. In fact, in the second orchestral piece of his presentation both western and Chinese musical instruments can be seen playing together.

During the Q/A session after his talk, Mr. Luo indicated that music students in China today study both western and Chinese traditional music.

Sandwiches and cake were supplied by Dong Phuong Bakery. Cookies, potato chips, coffee and soft drinks were also served. About 80 people participated in the event.



Events and Observances (cont.)

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Public Service Recognition Week Awards Luncheon

Submitted by: Deepak Bhatnagar

Here is a picture of all those from SRRC that were honored at the Federal Executive Board Awards Luncheon for Public Service Recognition Week. It was a proud moment for me to see that quite a large number of our staff were considered best amongst some serious competition between Federal Agencies in the Greater New Orleans Area. A few winners could not make the event, and are not in the picture (Mike Dowd, Janice Boyd, Melissa Santos, Jeanne Lea). Congratulations to this year's honorees. I look forward to nominating many other deserving staff for next year's awards.



Public Service Recognition Lakeside Mall Event

Submitted by: Mike Dowd and Scott Pelitire

On Thursday May 17th, SRRC participated in Public Service Recognition Week Mall Exposition Program held in Lakeside Mall. The program included several local agencies, and gave the public a chance to see what we do as federal employees. The Center display included a poster of the research activities of all our Research Units and a number of “touchy-feely” display items. Thanks to the volunteers that staffed the display and helped out this year: John Bland, HN Cheng, Suzi Brashear, Steve Lloyd, Melissa Dunn, Jacqueline Nesbit, Suhad Wojkowski, Shannon Beltz, Peter Bechtel and Jane McBride. This is a great opportunity for the Center to showcase our current research, so if you have an item for us to consider for next year's program, please talk to either Mike Dowd or Scott Pelitire.



Events and Observances (cont.)

Community Outreach Project: Blessing Bags for Homeless Shelters Extended to June 8, 2018

Submitted by: Trinia Bax

The Community Outreach Event this year is “**Blessing Bags for Homeless Shelters**”. The drive has been extended and is now running through Friday, June 8, 2018. The designated agencies for blessing bag donations are: Chez Hope, Inc. www.chezhope.org, Eden House www.edenhousesenola.org and Ozanam Inn www.ozanaminn.org.

If you would like to make a donation, please bring your donations to me in Room 2004; there are also boxes located on the ground floor by mailroom and outside the Director’s Office. See the fliers attached to the designated boxes for a list of needed items. Place items in a gallon-sized zip lock bag or put in a grocery bag and the committee will bag them for you.

Staff members will collect the Blessing Bags for distribution to the designated charities. If you have any questions give me a call at ext 213. Thank you for your donations.

Upcoming Events

Caribbean American Heritage Month Celebration

Submitted by: Michael Watson

The **Caribbean American Heritage Month Committee** celebrates the significant contributions of both Caribbean and Caribbean Americans to the American Diaspora.

Our first event will be our annual “**Taste of the Caribbean**” on June 7. This event exposes individuals at SRRC to the exotic flavors of Caribbean coffee. To enhance the tasting experience, dessert will also be provided.

Our second event during **Caribbean American Heritage Month** will be our Caribbean American Heritage Luncheon which will be held on June 21. Authentic Caribbean food will be provided by **Boswell’s Jamaican Grill**.

Additionally, the cultural beauty of the Caribbean country of the **Dominican Republic** will be highlighted. During our luncheon event, we will be exposed to the musical genius of internationally acclaimed songwriter and musician **Jose Fermin Ceballos**. Other participants adding their artistic and musical talents will also be in attendance from the **New Orleans Center for the Gulf South**.

Caribbean American Heritage Month



Events and Observances (cont.)

SRRC Visitors

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Visit by Dr. James Lindsay

Submitted by: Dr. K. Rajasekaran

Dr. James Lindsay, National Program Leader, Food Safety (NP108) visited the Food and Feed Safety Research Unit on May 8-9. He reviewed the accomplishments and milestones in all three CRIS projects. On the second day of his visit, he met with each scientist and support staff in their labs, and discussed possible improvements and new research directions. Dr. Lindsay indicated his strong respective support for our research programs, and for the construction of a new BSL2-P-compliant greenhouse wing on the SRRC campus. He also had extensive discussions with the Center Director, Dr. Deepak Bhatnagar on ongoing current and new research efforts and the staffing needs of FFSRU. His visit was indeed appreciated by the Director and the FFS staff.



OTT Team Visit

Submitted by: Dr. Deepak Bhatnagar

OTT Tech Transfer Training was held on June 1st at SRRC. Tech Transfer is an important component of all our work requirement, and we must learn what we can and cannot do; as well as how to get credit for all our inventions. Mojdeh Bahar, Assistant Administrator & Director of OTT, provided an overview of technology transfer at ARS. Helpful hints and things to know about Agreements, Patents and Licensing were presented by other members of the OTT team. The Tech Transfer team also made time to meet with individuals on specific projects after the training. Staff from Poplarville and Baton Rouge also attended the event.



2nd Biennial Advances in Sugar Crop Processing and Conversion (ASCPC) Conference

Submitted by: Isabel Lima



The Sugar and Energy CRIS Research Project of the Commodity Utilization Research Unit hosted the **2nd Biennial Advances in Sugar Crop Processing and Conversion (ASCPC) Conference** at Le Pavillon Hotel on May 15-18. The Conference focused on sugar products and technologies that have specific applications in sugar and specialty chemical manufacturing markets with intent to showcase to our industry partners, stakeholders, collaborators, and commodity groups, our latest advancements in research. We also promoted the exchange of information on new sugar crop commodities and process development, and conversion technologies associated with the use of sugar crops as sustainable renewable resources for processing and conversion into food, energy, biomaterials and biochemicals.

In addition to national representatives, the conference included participants from Belgium, Portugal, Brazil, Canada and Thailand. Dr. Deepak Bhatnagar, SRRC Center Director gave the welcome address, while Dr. Ed King, retired Area Director (MSA) and Dr. Jonathan Male, D.O.E. gave the invited keynote lectures.

The conference hosted a total of 29 oral presentations, including a workshop. The presentations highlighting SRRC research contributions were titled:

- Powdered Activated Carbon to Adsorb Colorants from sugar Beet Syrup – a Pilot Plant Study
- Practical Use of Soybean Oil to Stabilize and Store Medium to High Brix Sweet Sorghum Syrups
- Effect of Feed Source and Pyrolysis Conditions on Sugarcane Bagasse Biochar
- Sensory Flavor Characteristics of Sweet Sorghum Syrup
- The Nature of Floc Problems in Alcoholic Beverages Sweetened with Cane Sugars and How to Remove Them
- Stabilization of Sweet Sorghum Bagasse for Novel Applications Using Compaction and Ensiling

There were 19 poster presentations of which SRRC staff presented the following:

- Evaluation of hydrogen peroxide as a decolorizer in upstream juice products at a sugarcane factory
- First year operation of a mechanical detrasher system at a Louisiana sugarcane factory
- Nutritional properties and composition of commercial syrup sweeteners in the USA
- Total phenolics in sweet sorghum syrups compared to other commercial syrups: antioxidant activity and color
- Multi-year field application of fly ash and biochars from bagasse and leafy residue onto fields
- Pilot plant study on the use of powdered activated carbons to remove various impurities from a sugar refinery liquor
- Nutrient requirements for the production of biochemicals from sweet sorghum and sugar beet syrups via fermentation
- Biobutanol production from sweet sorghum biorefinery by-products
- Antioxidants in sorghum

ASCPC 2018 Winners—All SRRC:

Best Oral Presentation:

Marsha Cole, Gillian Eggleston, and Deriesha Gaines. “Development of the industrial starch method to quantify total, soluble, and insoluble starch in sugar manufacturing products.”

Best Poster:

Gillian Eggleston, David Stewart, Belisario Montes, Alexia Triplett, Eldwin St. Cyr, and Stephanie Boone. “Evaluation of hydrogen peroxide as a decolorizer in upstream juice products at a sugarcane factory.”



ASCPC 2018 Organizing Team

from left to right: Eldwin St.Cyr, Isabel Lima, Alexia Triplett, Xavier Miranda, Larry Boihem, Gillian Eggleston, Stephanie Boone, Sophia Wojkowski, and Maureen Wright

ARS Research Chemist **Dr. Matthew Gilbert**, ARS Research Plant Pathologist **Dr. Rajtilak Majumdar**, and ARS Research Biologist **Dr. Kanniah Rajasekaran** of the Food and Feed Safety Research Unit attended the “2018 Corn Utilization and Technology Conference” in St. Louis, MO on June 4-6. Dr. Gilbert presented a poster entitled “Environmental factors influencing *Aspergillus flavus* development and toxin secretion in maize kernels”; Dr. Majumdar presented a poster entitled, “Mitigation of *Aspergillus flavus* infection and aflatoxin contamination in maize utilizing RNAi-mediated HIGS”; and Dr. Rajasekaran presented a poster entitled “Control of preharvest aflatoxin contamination in transgenic maize expressing a tachyplesin-derived synthetic peptide”.

ARS Research Chemist, **Michael Easson**, ARS Textile Technologist, **Michael Reynolds** and ARS Research Materials Engineer, **Sunghyun Nam** of the Cotton Chemistry and Utilization Research Unit attended the “World of Wipes (WOW) International Conference 2018” in Chicago, IL on June 5-8. Dr. Easson presented a paper entitled, “Non-Chemical Method for Improved Whiteness of Greige Cotton” and Dr. Nam presented a paper entitled, “Nanoengineered Cotton Wipes”.

Upcoming Meetings

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Submitted by: Terri Von Hoven

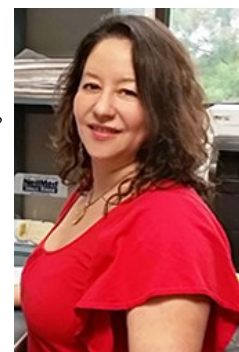
June 7-11 American Society of Microbiology - Atlanta, GA

June 25-27 ASSCT (American Society of Sugar Cane Technologists), Joint Division Meeting - Bonita Springs, FL, USA, ASSCT.org

Vote for Dr. Soheila J. Maleki 2018 Sammies People's Choice Award

Dr. Soheila J. Maleki, Lead Scientist in Food Allergy Research with FP&SQ Research Unit, is a finalist in the Science and Environment category for the 2018 Samuel J. Heyman Service to America Medals (Sammies).

Dr. Maleki has made it her life's work to reduce the adverse health consequences of peanut and tree nut allergies. She has led life-changing research on the causes, detection, prevention and potential remedies for peanut and tree nut allergies, which affect up to two million American children. While the Sammies selection committee chooses the seven award winners from 27 finalists, the People's Choice honoree is chosen by all of us! Read about [Dr. Maleki's work](#) on the [Samuel J. Heyman Service to America Medals website](#) and vote [here](#) daily until 11:59 p.m. EST on July 9, 2018.



"The Sammies, known as the "Oscars" of government service, are a highly respected honor with a vigorous selection process. Named for the Partnership for Public Service's late founder who was inspired by President Kennedy's call to serve in 1963, these awards align with his vision of a dynamic and innovative federal workforce that meets the needs of the American people. (servicetoamericamedals.org).

Submitted by: Dr. Deepak Bhatnagar

The SRRC Internet page on the ARS website.... Is an excellent tool for highlighting our research accomplishments and our staff. We are in the process of updating all the information. Here is a list of the personnel responsible for the website maintenance for SRRC and our Research Groups. If you have any suggestions for improving the website or for adding information, do contact any one of these individuals. The basic format for the ARS site has been pre-determined.

Brian Mack, SRRC Location Webmaster
David Fang, Cotton Fiber Bioscience Research
Les Scharfenstein, Food and Feed Safety Research
Terri von Hoven, Cotton Structure and Quality Research
Elena Graves, Cotton Chemistry and Utilization Research
Barry Hurlburt, Food Processing and Sensory Quality Research
Thomas Klasson, Commodity Utilization Research
Advisor: Suhad Wojkowski

Carpal Tunnel Syndrome

Submitted by: Shelia Parker

A numbness and tingling in the hand and arm caused by a pinched nerve in the wrist due to excessive use of the hands. (*repetitive motions*)

More than 3 million US cases per year are reported and treated by medical professionals.



Key Symptoms:

- * Pain in the hand, wrist, and/or forearm
- * Numbness or tingling in the hand and arm

You may also Experience: Sensations of pins and needles, hand clumsiness, hand pain at night, hand weakness, or wrist weakness

Relieve Pain By:

- Resting Frequently and Stretching
- Applying ice pack or soak in ice bath for 10-15 minutes once or twice an hour
- Immersing your hand and wrist in warm water and gently move or flex your hand and wrist three to four times a day
- Wearing Wrist Splint
- Taking an anti-inflammatory drug such as ibuprofen or naproxen for pain (Consult Physician)
- Receiving Cortisone Injections
- Considering Surgery if Medically Required for Severe Cases

Moderate Forms of Carpal Tunnel Syndrome usually can be resolved within a few months. Severe forms may require surgery.

When engaging in repetitive motion activities during the day, try taking regular breaks and stretching to prevent carpal tunnel.



Safety Corner (cont.)

Submitted by: Shannon Beltz

Welcome to all of our new student employees who have joined us for the summer! Please remember that they need to be supervised in the labs. If you leave for an appointment, lunch, or are out for the day, etc, make sure they know who they can find if they have a problem while you are out. They should NOT be working between 6 PM – 6 AM. And please reinforce proper work clothing and PPE for the lab. Reinforce with them the importance of asking questions if they are uncertain of something. **We would rather answer 1,000 questions than to have 1 accident!**

Please continue checking your showers and eyewashes weekly. I am compiling the results of the survey that was done, and we will be making a plan soon on how to deal with some of these issues that have come up regarding the showers and eyewashes. Please continue to check them regularly. THANKS!

What do you do if you find an entry door that is malfunctioning? What about an ice machine that is making a funny noise? Or a lightbulb that is out in your lab or office? YOU CALL THE FRONT DESK! Veronica is ready and willing to dispatch help. Please help us fix your problems by letting us know when you find a problem ☺. Don't assume someone else has reported it already, just call it in.

Did You Know?

June is National Safety Month

Observed annually in June, National Safety Month focuses on reducing leading causes of injury and death at work, on the road and in our homes and communities. The National Safety Council provides resources highlighting a different safety topic for each week in June:

- Week 1: Emergency Preparedness
- Week 2: Wellness
- Week 3: Falls
- Week 4: Driving



For more information, check the National Safety Council website: <https://www.nsc.org/work-safety/get-involved/national-safety-month>

Human Resource Corner

Human Relations Committee Update

The Center's Human Relations Committee sponsors the individual special emphasis events throughout the year. We celebrate these together, as they fit within our mission to help encourage acceptance, respect for diversity and for eliminating discrimination.

The Committee members and their Observances are listed below:

January—No events

February—African-American Heritage, Dawn Reed/Mia Schexnayder

March—Women's History, Shannon Beltz/Crista Madison

April—Take our sons/daughters to work, Chris Mattison/Darlene Downey

May—Asian/Pacific Heritage, H.N. Cheng/Hsiaopo Cheng

June—Caribbean Heritage, Michael A. Watson/Jeanne Lea

July—LGBTQA, Geromy Moore/Stephanie Gross

August—Cultural Diversity Day, Elena Graves/Jeanne Moraitis

September—Hispanic Heritage, David Ambrogio/Isabel Lima

October—Disability Awareness, Vince Edwards/Shawndrika Reed

November—Native American Heritage, Kelley Williams/Mary Lovisa

December—No cultural observances

Ex-Officio member—Janell Becker, AO

Ex-Officio member—Deepak Bhatnagar, DO

Co-chairs of HR Committee: H.N. Cheng and Karen L. Bett-Garber

Welcome to Our New Employees

Submitted by: Janell Becker

SRRC values its outreach programs and has a long history of employing students; please welcome the following summer students:

Stone Warfield, Biological Science Aid, is working in FFS with Dr. Geromy Moore. Stone just finished his first year at the University of Kentucky, is an approved veterinary assistant, and is fluent in Chinese.

Hannah Martin, Biological Science Aid, is working in FPSQ with Dr. Soheila Maleki. Hannah is an honors student at Grace King High School and will be a senior in the fall.

Aariele Dominique, Biological Science Aid, is working in FFS with Dr. Jeffrey Cary. Aariele is an honors student at Dillard University, majoring in biology.

Jerome Jacobsen, Biological Science Aid, is working in FFS with Dr. Matthew Lebar. Jerome attends Columbia University in New York and is majoring in biology, with concentration in chemistry.

New Orleans June Festivals

Submitted by: Terri Von Hoven

06/08-10/2018 - [New Orleans Pride](#)

06/09/2018 - [French Market Creole Tomato Festival](#)

06/21/2018 - [FestiGals](#)

06/22/2018 - [Swamp Magic Fest](#)

06/23/2018 - [Cajun-Zydeco Festival](#)

June Tricentennial Events

06/01/2018 - 06/30/2018

Nola4Women Global Summit on Women and Girls

The summit will shine a spotlight on New Orleans as a thought leader in the global conversations about women and girls. By Nola4Women.

06/16/2018

Unveiling of the 527 Conti Street Historic Marker

The event will include a Forum at the Historic New Orleans Collection Williams Research Center, with an unveiling of the marker on the original Tribune building immediately following. This event is free and open to the public.

Community Garden Update

Submitted by: Cathy Mason and Greg Ford

The garden is back up and coming along nicely. This spring we have planted okra, Thai peppers, Serrano peppers, eggplant, zucchini, yellow squash, green beans, parsley, oregano and basil. Those last three are our first attempt at natural control of insects; a practice known as companion cropping. You may also notice red (Nasturgiums) and yellow (marigolds) flowers along the edges. These are also there to deter insects. The nasturgiums are also edible (both flowers and leaves)...they add a peppery kick to salads!

Scott Pelitire is tending some mirliton along the fence behind the greenhouse. This traditional Louisiana vegetable will give us produce this fall. We will be harvesting in probably a month or so, and okra will produce all the way until the fall.



Recycle dates: June 14 and 28



Recent SRRC Publications

Submitted by: Suhad Wojkowski

Full text pdfs of SRRC publications are available in the Eprints database via “Library” link on the SRRC Intranet page: <http://nola.srrc.usda.gov:8000/srrcmenf.htm>

Click on the article's title below to launch the pdf from Eprints.

Gilbert, Matthew K., Majumdar, Rajtilak, Rajasekaran, Kanniah, Chen, Zhi-Yuan, Wei, Qijian, Sickler, Christine M., Lebar, Matthew, Cary, Jeffrey W., Frame, Bronwyn R. and Wang, Kan (2018) [*RNA Interference-Based Silencing of the Alpha-Amylase \(Amy1\) Gene in Aspergillus flavus Decreases Fungal Growth and Aflatoxin Production in Maize Kernels.*](#) Planta, 247. pp. 1465-1473.

Li, Yichen, Bren-Mattison, Yvette, Grimm, Casey and Mattison, Christopher P. (2018) [*Acid-Etching of Zinc Metal Particles Augments Adsorption and Removal of Cashew Allergens from Extracts.*](#) Journal of Food Process Engineering pp. 1-10.

Liu, Ming, Wang, Yan, Wu, Yiqiang, He, Zhongqi and Wan, Hui (2018) [*“Greener” Adhesives Composed of Urea-Formaldehyde Resin and Cottonseed Meal for Wood-Based Composites.*](#) Journal of Cleaner Production, 187. pp. 361-371.

Tewolde, Haile, Shankle, Mark, Way, Thomas R., Pote, Daniel H., Sistani, Karamat R. and He, Zhongqi (2018) [*Poultry Litter Band Placement Affects Accessibility and Conservation of Nutrients and Cotton Yield.*](#) Agronomy Journal, 110 (2). pp. 675-684.